WHAT IS CLAIMED:

1. A multi-band antenna comprising:

a first planar inverted-F antenna branch configured to resonate in response to first electromagnetic radiation in a first frequency band;

a second planar inverted-F antenna branch configured to resonate in response to second electromagnetic radiation in a second frequency band that is less than the first frequency band;

a ground plane beneath the first and second planar inverted-F antenna branches and ohmically isolated therefrom; and

a floating parasitic element ohmically isolated from the second planar inverted-F antenna branch and the ground plane and configured to electromagnetically couple to the second planar inverted-F antenna branch.

2. A multi-band antenna according to Claim 1 wherein the floating parasitic element is coplanar with the second planar inverted-F antenna branch.

3. A multi-band antenna according to Claim 1 wherein the floating parasitic element is beneath and at least partially overlaps the second planar inverted-F antenna branch.

4. A multi-band antenna according to Claim 3 wherein the floating parasitic element is between the ground plane and the second planar inverted-F antenna branch.

5. A multi-band antenna according to Claim 1 wherein the first and second planar inverted-F antenna branches extend in a first direction to partially enclose an open region.

6. A multi-band antenna according to Claim 5 wherein the second planar inverted-F antenna branch is between the floating parasitic element and the open region.

7. A multi-band antenna according to Claim 6 wherein the second planar inverted-F antenna branch extends in first and second directions and the floating parasitic element extends in the first and second directions.

8. A multi-band antenna according to Claim 1 wherein the first planar inverted-F antenna branch is configured to provide a first signal component in a first frequency range of the first frequency band; and

wherein the floating parasitic element is configured to resonate to provide a second signal component in the first frequency band in a second frequency range in the first frequency band that overlaps the first frequency range to provide a Voltage Standing Wave Ratio for the multi-band antenna assembly in the first frequency band of about 2.5:1.

9. A multi-band antenna according to Claim 1 further comprising:

a dielectric substrate having the first and second planar inverted-F antenna branches mounted thereon, the first and second planar inverted-F antenna branches coupled to one another at a proximal portion of the dielectric substrate.

10. A multi-band antenna according to Claim 9 further comprising:

an RF feed coupled to the first and second planar inverted-F antenna branches at the proximal portion of the dielectric substrate; and

a ground contact spaced apart from the RF feed.

11. A multi-band antenna according to Claim 1 wherein the first frequency band includes frequencies in a range between about 1710 MHz and about 1990 MHz.

12. A multi-band antenna according to Claim 1 wherein the second frequency band includes frequencies in a range between about 824 MHz and about 960 MHz.

13. A multi-band antenna according to Claim 1 wherein the multi-band antenna is located in a cavity of a housing of a wireless terminal.

14. A multi-band antenna according to Claim 1 wherein the multi-band antenna is configured to couple to an exterior of a housing of a wireless terminal.

15. A multi-band wireless terminal, comprising:

a housing that defines a cavity inside the housing;

a transceiver, positioned within the cavity, that receives multi-band wireless communications signals and that transmits multi-band wireless communications signals; and

a multi-band antenna in the cavity comprising

a first planar inverted-F antenna branch configured to resonate in response to first electromagnetic radiation in a first frequency band;

a second planar inverted-F antenna branch configured to resonate in response to second electromagnetic radiation in a second frequency band that is less than the first frequency band; and

a ground plane beneath the first and second planar inverted-F antenna branches and ohmically isolated therefrom; and

a floating parasitic element ohmically isolated from the second planar inverted-F antenna branch and the ground plane and configured to electromagnetically couple to the second planar inverted-F antenna branch.

16. A multi-band wireless terminal according to Claim 15 wherein the floating parasitic element is coplanar with the second planar inverted-F antenna branch.

17. A multi-band wireless terminal according to Claim 15 wherein the floating parasitic element is beneath and at least partially overlaps the second planar inverted-F antenna branch.

18. A multi-band wireless terminal according to Claim 15 wherein the first and second planar inverted-F antenna branches extend in a first direction to partially enclose an open region.

19. A multi-band wireless terminal according to Claim 18 wherein the second planar inverted-F antenna branch is between the floating parasitic element and the open region.

20. A multi-band wireless terminal according to Claim 19 wherein the second planar inverted-F antenna branch extends in first and second directions and the floating parasitic element extends in the first and second directions.

21. A multi-band wireless terminal according to Claim 15 wherein the first planar inverted-F antenna branch is configured to provide a first signal component in a first frequency range of the first frequency band; and

wherein the floating parasitic element is configured to resonate to provide a second signal component in the first frequency band in a second frequency range in the first frequency band that overlaps the first frequency range to provide a Voltage Standing Wave Ratio for the multi-band antenna assembly in the first frequency band of about 2.5:1.

22. A multi-band wireless terminal according to Claim 15 wherein the first frequency band includes frequencies in a range between about 1710 MHz and about 1990 MHz.

23. A multi-band wireless terminal according to Claim 15 wherein the second frequency band includes frequencies in a range between about 824 MHz and about 960 MHz.

24. A multi-band wireless terminal according to Claim 15 wherein the floating parasitic element is coplanar with the second planar inverted-F antenna branch.

25. A multi-band wireless terminal according to Claim 15 wherein the floating parasitic element is beneath and at least partially overlaps the second planar inverted-F antenna branch.

26. A multi-band wireless terminal according to Claim 15 wherein the floating parasitic element is above and at least partially overlaps the second planar inverted-F antenna branch.